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Ladies and Gentlemen:

To comply with the Administrative Rules of Montana, 17.4.607(2) and 17.4.609(2), the Department of Environmental Quality (DEQ) has prepared the enclosed Draft Environmental Assessment (EA). The attached Draft EA is for the land application of septage, portable toilet waste and graywater in Broadwater County, Montana.

The purpose of this Draft EA is to inform the public of the proposed action and to seek public participation in the decision-making process. Persons wishing to comment have until the close of business on August 28, 2015 to submit written comments concerning the proposal. DEQ will not make a final decision until after the comment period has ended. A complete color copy of the EA may be viewed on DEQ's website at:

<http://deq.mt.gov/ea/SepicPumpers.mcp.x>.

If you wish to comment on this proposed action during the comment period, please do so in writing by mailing your comments to the Waste and Underground Tank Management Bureau, Solid Waste Program, P.O. Box 200901, Helena, MT 59620-0901, or by E-mail to mailbox [deqwutbcomments@mt.gov](mailto:deqwutbcomments@mt.gov).

Sincerely,

Bob McWilliams  
Environmental Science Specialist  
Waste & Underground Tank Management Bureau

Enclosure: Draft EA – Kerplunk LLC.

Steve Bullock, Governor | Tom Livers, Director | P.O. Box 200901 | Helena, MT 59620-0901 | (406) 444-2544 | [www.deq.mt.gov](http://www.deq.mt.gov)

## **MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

Permitting and Compliance Division  
Waste and Underground Tank Management Bureau  
Solid Waste Section  
PO Box 200901  
Helena, MT 59620-0901

### **DRAFT ENVIRONMENTAL ASSESSMENT (EA)**

#### **SECTION 1.0 – SOLID WASTE SECTION ROLES AND RESPONSIBILITIES:**

The Department of Environmental Quality (DEQ), Solid Waste Section (SWS), is responsible for ensuring activities proposed under the Solid Waste Management Act, the Septage Disposal Licensure Act, the Integrated Waste Management Act, and the Motor Vehicle Disposal & Recycling Act are in compliance with current regulations. A land application site must first be approved by the county in which the site is located before the request for approval is submitted to the SWS for review and approval. Each licensee is responsible for following the Administrative Rules of Montana (ARM) for Cesspool, Septic Tank, and Privy Cleaners and other restrictions and requirements put in place by the county in which the land application site is located.

#### **Purpose of the Environmental Assessment:**

In accordance with 75-1-102, Montana Code Annotated (MCA), the Montana Environmental Policy Act (MEPA) is procedural and requires the “adequate review of state actions in order to ensure that environmental attributes are fully considered by the legislature in enacting laws to fulfill constitutional obligations; and the public is informed of the anticipated impacts in Montana of potential state actions.” According to MEPA, EA’s are the procedural documents that communicate the process agencies follow in their decision-making. An EA does not result in a certain decision; but rather, it serves to identify the potential effect of a state action within the confines of existing laws and rules governing such proposed activities so that agencies make balanced decisions. The MEPA process does not provide regulatory authority beyond the authority explicitly provided in the existing statute.

The Septage Disposal and Licensure regulations establish the minimum requirements for the land application of septage wastes. The EA is the mechanism that the DEQ uses to: 1) Disclose whether a proposed land application site meets the minimum requirements for compliance with the current laws and rules; 2) Assist the public in understanding the licensing laws of the Septage Disposal and Licensure program; 3) Identify and discuss the potential environmental effects of the proposed land application activity if it is approved and becomes operational; 4) Discuss actions taken by the applicant and the enforceable measures and conditions of the license designed to mitigate the effects identified by DEQ during the review of the application; and 5) Seek public input to ensure DEQ has identified all the substantive environmental effects associated with the proposed land application of septage, portable toilet waste, and graywater at the proposed location.

#### **Benefits and Purpose of Project:**

Septage is the liquid and solid material removed from a septic tank, cesspool, portable toilet, or similar treatment works that receives only waste and wastewater from humans or household operations. The land application of septage is an economical and environmentally sound practice. When properly managed, septage is a resource. When used as a valuable soil conditioner, septage contains nutrients that can reduce reliance on chemical fertilizers for agriculture. A properly managed land application program recognizes the benefits of septage and employs practices to maximize the value of the material. Land application of septage benefits agricultural land by the addition of moisture, organic matter, and nutrients to the soil without adversely affecting public health. When the septage is being applied as a soil conditioner; the use is



considered an application rather than the disposal due to the benefits the materials provide. The land application of septage, portable toilet waste, and graywater at this site will add nutrients, moisture, and improve the soil tilth for the continued production and enhancement of agricultural crops and grasses.

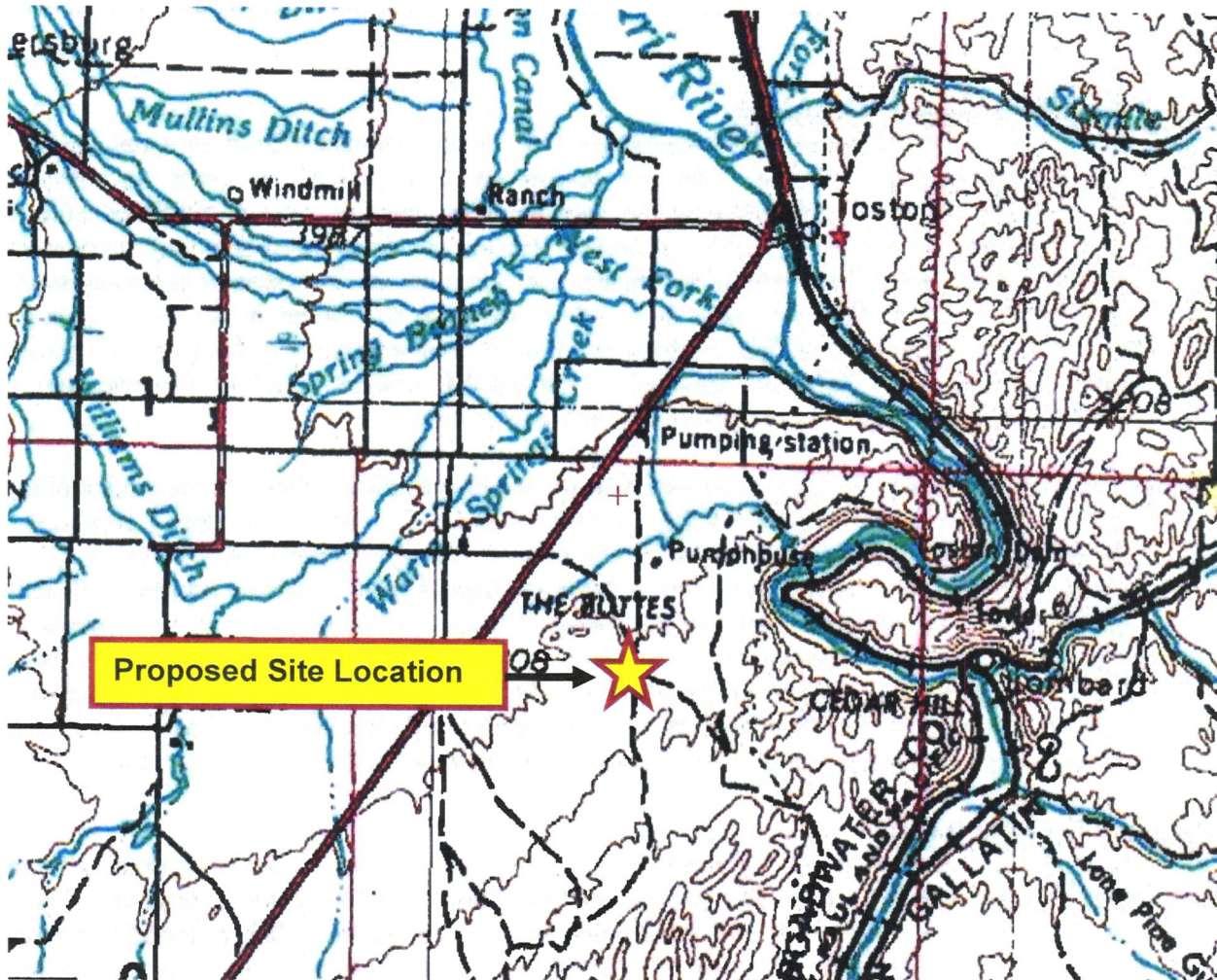
## SECTION 2.0 – PROJECT DESCRIPTION:

Levi DeMartin of Kerplunk LLC. (applicant), has submitted an application for the approval of a site for the land application of septage, portable toilet waste, and graywater on approximately 662 acres of Sharon Lewis property in Broadwater County. At the present time, the property is being used for production of spring wheat. Land application will occur at this site only as-needed.

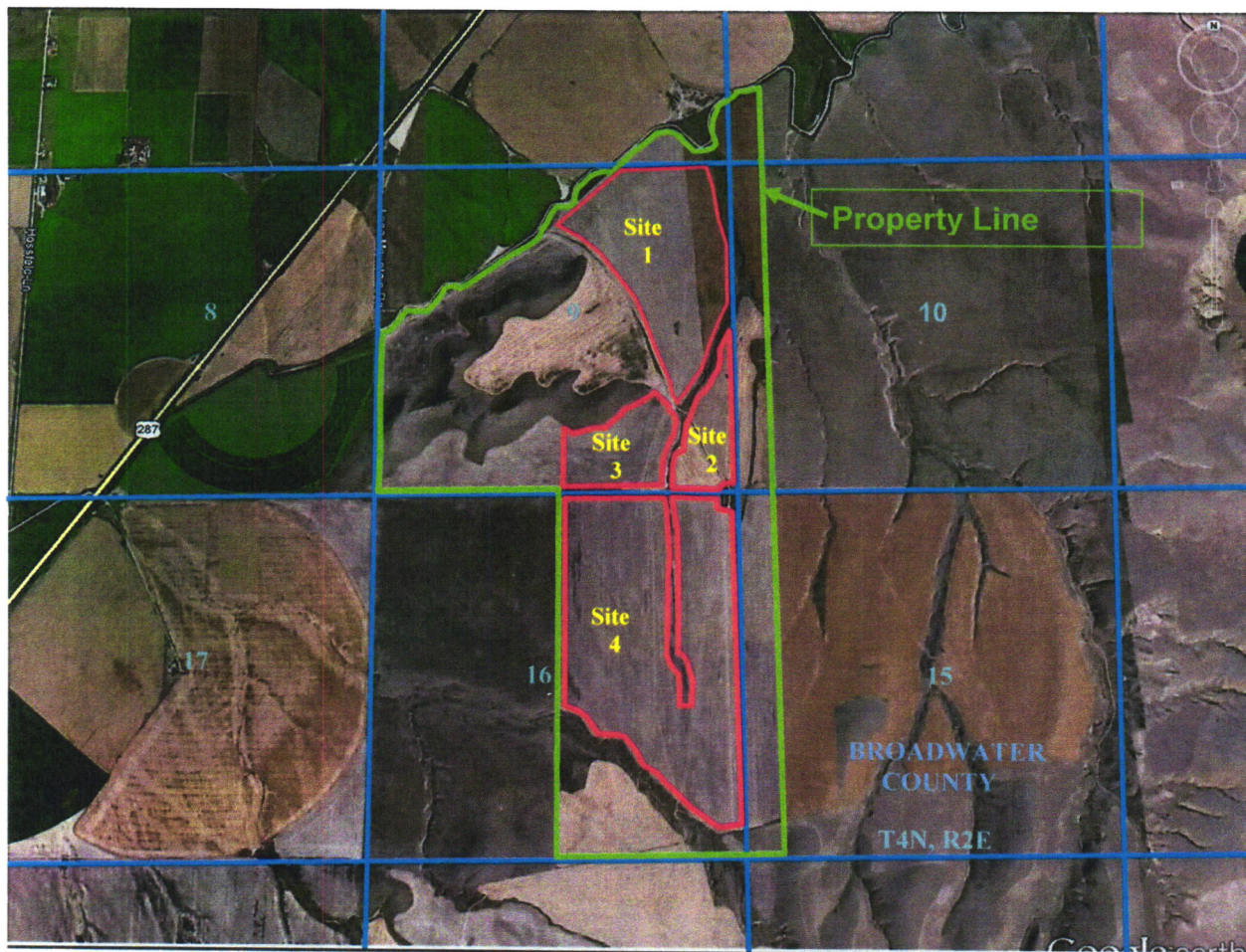
### Site Location:

The proposed land application site is located on private property in Sections 9, and 16, Township 4 North, Range 2 East, Montana Principal Meridian, Broadwater County, Montana (Figure 2.1) As shown in Figure 2.2, the areas proposed for land application within Sections 9 and 16 have been divided into four separate sites. Land application is proposed in the NE1/4, the NE1/4 of the SE1/4, and the S1/2 of the SE1/4 of Section 9, T4N, R2E (Figure 2.3). Land application is proposed in the NE1/4, the N1/2 of the SE1/4, the SE1/4 of the SE1/4 of Section 16, T4N, R2E (Figure 2.4). Figures 2.5 through 2.8 provide photographs of the sites proposed for land application that were taken during DEQ's site visit.

**Figure 2.1: Proposed Land Application Site Location**

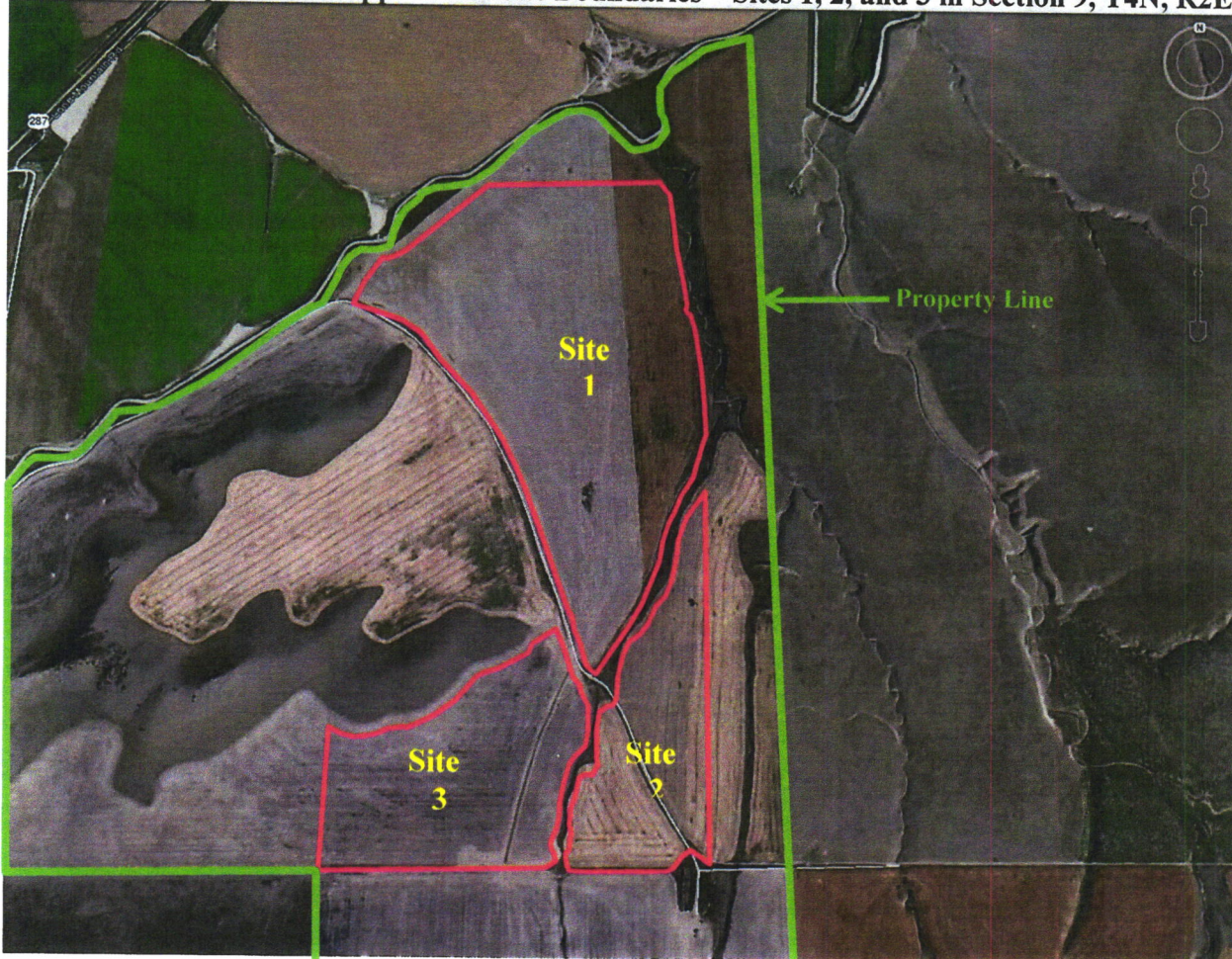








**Figure 2.3: Map of Land Application Site Boundaries – Sites 1, 2, and 3 in Section 9, T4N, R2E**





**Figure 2.4: Map of Land Application Site – Site 4 Boundary in Section 16, T4N, R2E**



**Figure 2.5: Site 1 Looking East**





**Figure 2.6: Site 1 and 2 Looking Southeast**



**Figure 2.7: Site 4 and 3 Looking North**





**Figure 2.8: Site 4 and 3 Looking Northwest**



**Site Setback Requirements:**

The applicant will maintain the setbacks noted in Table 2.1 during land application activities.

**Table 2.1: Land Application Site Setback Requirements**

ARM Reference	Setback Requirements
17.50.809(1)	Pumpings may not be applied to land within 500 feet of any occupied or inhabitable building.
17.50.809(2)	Pumpings may not be applied to land within 150 feet of any state surface water, including ephemeral or intermittent drainages and wetlands.
17.50.809(3)	Pumpings may not be applied to land within 100 feet of any state, federal, county, or city-maintained highway or road.
17.50.809(4)	Pumpings may not be applied to land within 100 feet of a drinking water supply source.
17.50.809(6)	Pumpings may not be applied to land with slopes greater than 6%.
17.50.809(8)	Pumpings may not be applied to land where seasonally high ground water is 6 feet or less below ground surface.



### **Site Operation and Maintenance Requirements:**

The land application of septage and graywater is considered the beneficial use of a waste product when the material is applied in accordance with the laws and rules governing land application. The operational requirements for land application are outlined in Table 2.2.

**Table 2.2: Land Application Site Operational Requirements**

<b>ARM Reference</b>	<b>Site Restrictions/Requirements</b>
17.50.809(10)	All non-putrescible litter must be removed from the land application site within 6 hours of application.
17.50.809(12)	Pumpings may not be applied at a rate greater than the annual application rate (AAR) of the site for crop nitrogen requirement on an annual basis.
17.50.810(1)	Pumpings may not be applied to flooded, frozen, or snow covered ground if the Pumpings may enter state waters.
17.50.811(3)	Pumpings may be applied only if the person first performs one of the following vector attraction and pathogen reduction methods: <ul style="list-style-type: none"><li>• injection below the land surface so no significant amount remains on the land surface within one-hour of injection;</li><li>• incorporation into the soil surface plow layer within 6 hours of application;</li><li>• addition of alkali material so that the pH is raised to and remains at 12 or higher for a period of at least 30 minutes; or,</li><li>• management as required by 17.50.810 when the ground is frozen</li></ul>

The sites available for land application will be rotated on an annual basis, so that parcels used for land application one year will be inactive the next year. This rotation allows the vegetation or crop of choice to utilize the nitrogen and other nutrients added from the land application process.

Septage will be land applied using a splash plate to disperse the waste in a wide, thin, even layer at a beneficial rate. Septage will be incorporated into the soil surface plow layer with a tractor and tillage equipment within six-hours of application.

Land application will occur as-needed at a rate not exceeding the Annual Application Rate (AAR) in gallons per acre. For septage and portable toilet waste, the AAR is calculated based upon the production of a specific crop or grass, as follows:

AAR = Crop Nitrogen Requirement/0.0026 for septage waste.

AAR = Crop Nitrogen Requirement/0.0052 for portable toilet waste.

In this case, the landowner currently uses the property for the production of spring wheat. The spring wheat at this location has a nitrogen requirement of 99 pounds/acre. The resulting AAR for septage is 38,076 gallons per acre, and is equal to approximately 1.35 inches of liquid applied per acre per year. The resulting AAR for portable toilet waste is 19,038 gallons per acre, and is equal to approximately 0.67 inches of liquid applied per acre per year. For comparison, the average annual precipitation received during the month of August is approximately equal to the volume of septage that would be land applied per acre per year at the proposed site; the average annual precipitation received during the month of March is slightly greater than the volume of portable toilet waste that would be land applied per acre per year (see Table 2.3).



**Site Climate:**

The climate in the area proposed for land application is typical of the semi-arid regime in the Toston area. Table 2.3 provides a summary of monthly climate information. The winters in the Toston area are long and moderately snowy; the summers are hot and dry. The average annual precipitation is approximately 11.72 inches. The majority of precipitation falls during the months of May and June, while February is the driest month.

**Table 2.3: Monthly Climate Summary**

<b>TOSTON 1 W, MONTANA (248314)</b>													
<b>Period of Record Monthly Climate Summary</b>													
<b>Period of Record : 4/ 1/1957 to 2/19/1982</b>													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	32.1	40.5	47.3	58.0	68.5	76.5	85.1	83.5	72.4	61.4	45.1	36.5	58.9
Average Min. Temperature (F)	8.4	16.2	20.3	28.2	37.1	44.0	47.8	45.7	37.6	29.9	20.7	13.6	29.1
Average Total Precipitation (in.)	0.41	0.22	0.72	0.90	1.97	2.28	1.14	1.21	1.20	0.76	0.54	0.36	11.72
Average Total SnowFall (in.)	5.2	2.6	4.7	2.0	0.5	0.1	0.0	0.0	0.3	0.8	2.3	5.4	24.0
Average Snow Depth (in.)	2	1	1	0	0	0	0	0	0	0	0	1	0
Percent of possible observations for period of record.													
Max. Temp.: 93.1% Min. Temp.: 92.2% Precipitation: 93.7% Snowfall: 76.5% Snow Depth: 79.8%													

*Source: Western Regional Climate Center*



### SECTION 3.0 – ALTERNATIVES CONSIDERED:

**The following provides a description of reasonable alternatives whenever alternatives are reasonably available and prudent to consider:**

A decision by DEQ is triggered when the applicant upholds the request for approval of the proposed activity at the proposed location. The applicants, however, may at any time choose to withdraw the application. This would result in DEQ selecting the “no-action” alternative, because a DEQ decision would not be necessary. If the applicant withdraws the application, the applicant could seek to locate a land application site elsewhere.

**Alternative A:** The “no action” alternative. This alternative will be implemented when a final decision by DEQ is not required because the applicant has withdrawn the application for approval of the land application site.

**Alternative B:** The ‘license application denied’ alternative. This alternative will be implemented if the application does not meet the minimum requirements of the Septage Disposal Licensure Act and could not continue to be processed as submitted. If denied, the applicant may modify the application for the current site and reapply for licensure, or could locate, investigate, and apply for a licensure of another site.

**Alternative C:** The ‘license application approved’ alternative. This alternative will be implemented when DEQ approves the application for licensure of the new disposal site if the application meets the requirements of the Septage Disposal Licensure Act.

In consideration of these alternatives, DEQ has not received a request by the applicant to withdraw the application for licensure. DEQ has determined the application meets the requirements of the Septage Disposal and Licensure Laws. Therefore, the potential environmental effects of Alternative C were evaluated for the proposed project based on the information provided in the application, DEQ’s research on the site and area surrounding the proposed site, and DEQ’s site visit. The results of DEQ’s evaluation of potential environmental effects related to the proposed land application site are summarized in Section 4.0.



## **SECTION 4.0 - EVALUATION OF POTENTIAL EFFECTS**

Tables 4.1 and 4.3 of this section identify and evaluate the potential environmental effects that may occur to human health and the environment if the land application site is approved. The discussion of the potential impacts only includes those resources potentially affected. If there is no effect on a resource, it may not be mentioned in the analysis.

Direct and indirect impacts are those effects that occur in or near the proposed project area and might extend over time. Often, the distinction between direct and indirect effects is difficult to define, thus in the following discussion, impact or effect means both types of effects.



**TABLE 4.1: POTENTIAL IMPACTS OF THE PROPOSED LAND APPLICATION SITE ON THE PHYSICAL ENVIRONMENT**

<u>PHYSICAL ENVIRONMENT</u>	Major	Moderate	Minor	None	Unknown	Attached
1.0 TERRESTRIAL, AND AQUATIC LIFE AND HABITATS				✓		✓
2.0 WATER QUALITY, QUANTITY & DISTRIBUTION				✓		✓
3.0 GEOLOGY				✓		✓
4.0 SOIL QUALITY, STABILITY, AND MOISTURE			✓			✓
5.0 VEGETATION COVER, QUANTITY & QUALITY			✓			✓
6.0 AESTHETICS				✓		✓
7.0 AIR QUALITY				✓		
8.0 UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES				✓		✓
9.0 HISTORICAL AND ARCHAEOLOGICAL SITES				✓		✓
10.0 DEMANDS ON ENVIRONMENTAL RESOURCES ON LAND, WATER, OR ENERGY				✓		



## **ANALYSIS OF TABLE 4.1: POTENTIAL IMPACTS OF THE PROPOSED LAND APPLICATION SITE ON THE PHYSICAL ENVIRONMENT**

*This section evaluates the potential environmental effects that may occur on the physical environment if the proposed land application site is approved. The number on each of the underlined resource headings corresponds to a resource listed in the tables. Generally, only those resources potentially affected by the proposal are discussed. Therefore, if there is no effect on a resource, it may not be discussed.*

### **1.0 Terrestrial, Avian, and Aquatic Life and Habitats**

There are no wetlands or permanent surface water bodies located on the proposed site. Because no continuously active aquatic systems exist within the boundary of the proposed site, it is unlikely that there is any significant aquatic life or habitat anywhere on the site. Therefore, there is no anticipated impact to aquatic species.

An intensive survey was not performed to verify the presence of or impact to terrestrial or avian species within the land application site. However, because the site is actively being farmed for the production of wheat, it is unlikely that any terrestrial or avian species reside permanently on the site. Therefore, there is no additional anticipated impact to terrestrial or avian species from the proposed land application activities.

### **2.0 Water Quality, Quantity, and Distribution**

#### ***Surface Water***

The proposed land application site is located in west-central Montana and lies in the southern end of the Townsend Valley. The main drainages mapped on the United States Geological Survey (USGS) Lombard MT 1:24,000 quadrangle in the project vicinity is the Toston Canal, the Missouri River, and several intermittent drainages. Surface water drainage from the proposed land application area is generally towards the north-northwest, toward the Toston Canal. The Toston Canal transports surface water from the Missouri River to agricultural land throughout Toston Irrigation District. Irrigation water returns from the Toston Canal drains back towards the Missouri River. The proposed land application site is located on a bench near a local geographic feature called the Buttes. Site #1 is south and adjacent to the Toston Canal. Site #4 is to the south of the other sites and is on a relatively flat section of the property, with three intermittent drainages to the south and east of the site.

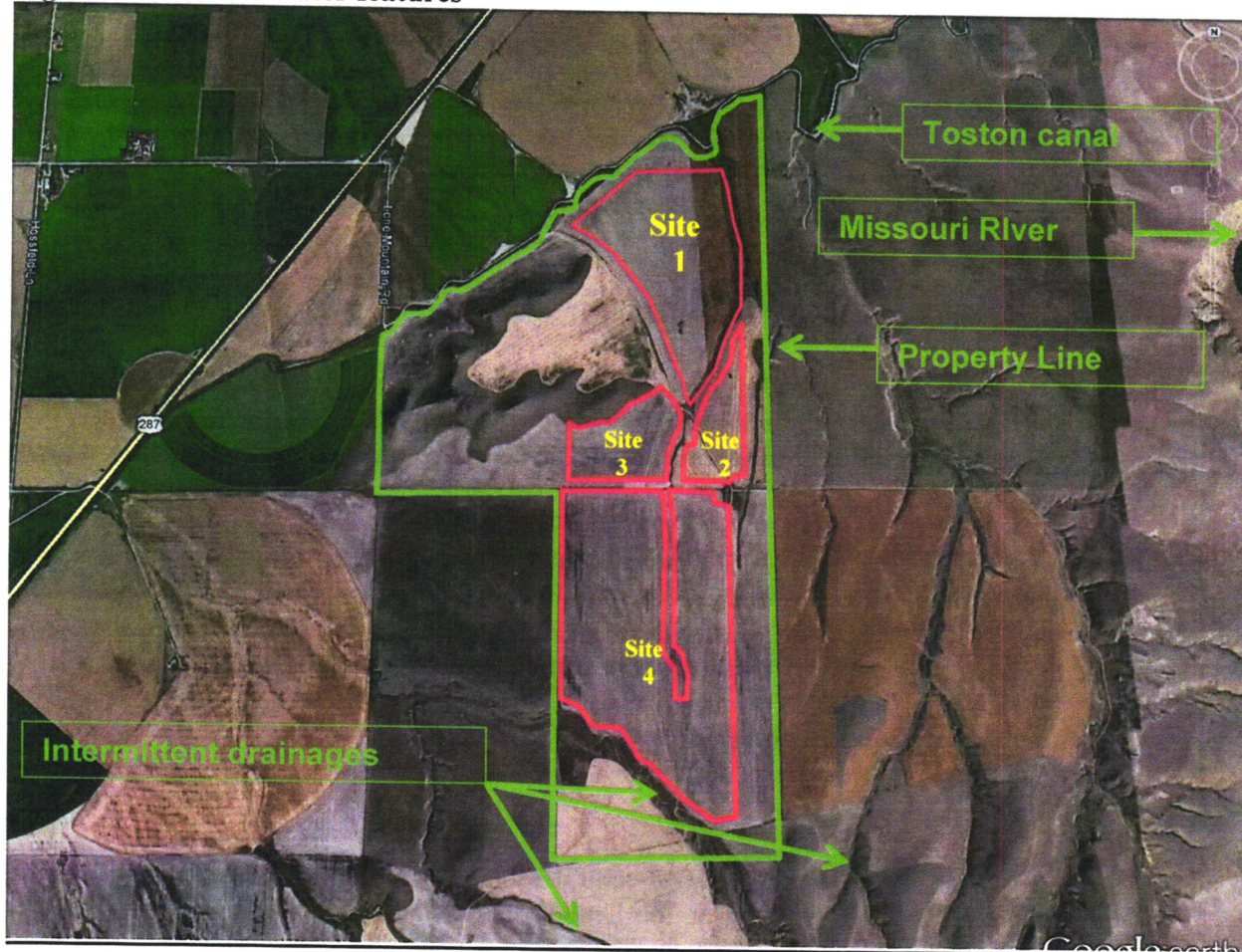
The areas proposed for land application are located approximately 1¼ miles west of the Missouri River. Septage will not be applied to land within 150 feet the high water mark of any state surface water, including intermittent drainages, irrigation canals, and wetlands. As a result, there is no additional anticipated impact to surface water from the proposed land application activities.

#### ***Groundwater***

Groundwater underlying the Townsend Valley is located in Quaternary and Tertiary deposits that consist mainly of conglomerate, shale, sandstone, and tuff, with minor amounts of breccia, limestone, and diatomaceous earth. Groundwater in these deposits occurs under both confined and unconfined conditions. In the southern end of the valley where the proposed land application site is located, groundwater occurs in the Tertiary beds that formed the Dry Creek Anticline and is confined under artesian pressure.



**Figure 4.1: Surface water features**



### *Nearby Groundwater Supply Wells*

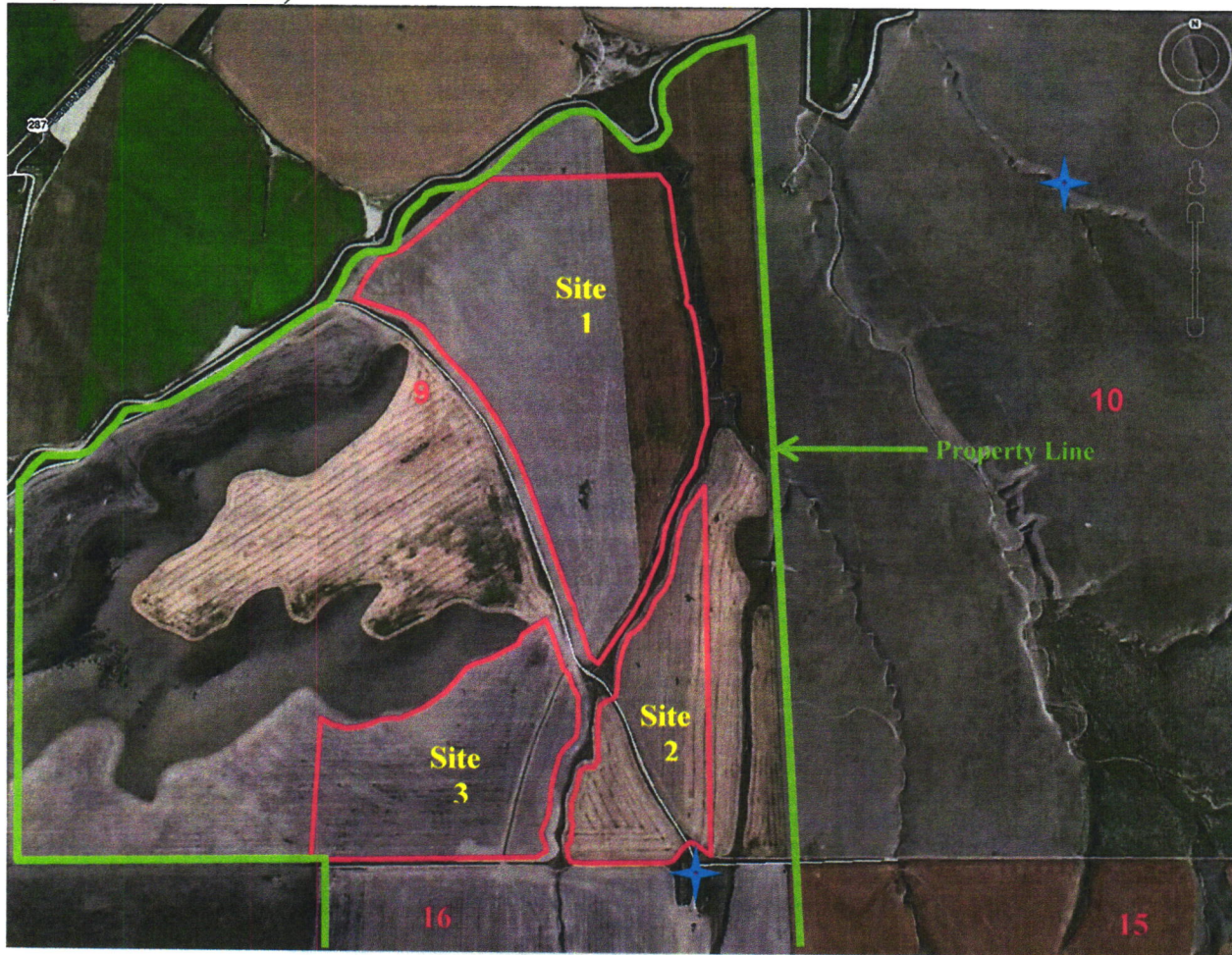
The Montana Bureau of Mines and Geology, Groundwater Information Center (GWIC) database identifies two water wells within 1½ miles of the site. Because the GWIC database locates wells by section, all wells in the sections that contain the proposed land application site and those surrounding the sites were included in this analysis (see Figure 4.2).

Table 4.2 summarizes the well information for the wells that were identified within the vicinity of the proposed land application site. Because the data in GWIC is based on well drillers' records, the details are not field-verified for accuracy. Further, the GWIC database contains well information only for those drilling records that have been submitted; there may be additional wells in the area that are not contained in the database because the records have not been submitted to GWIC. Therefore, this analysis is based only on information contained in the GWIC database.

According to GWIC, Section 16 contains one documented stockwater well. Section 10 also has one GWIC-documented stockwater well. The well in Section 16 was drilled in 1962 and is reported to be 325 feet deep with a static water level at the time of installation of 248 feet below ground surface. The stockwater well in Section 10, located east of Section 9, was drilled in 1947 and is reported to be 200 feet deep with a static water level at the time of installation of 140 feet below ground surface. Septage will be land applied in a wide, thin, even layer at rate not exceeding the AAR, and will be incorporated into the soil surface plow layer within six-hours of application. Static water levels are greater than 6-feet below ground surface (ARM 17.50.809(8)). There is no anticipated impact to the groundwater or groundwater supply wells as a result of the proposed land application activities.



**Figure 4.2: Location of Water Supply wells within 1.5 miles (Site application boundaries outlined in red, wells in blue star)**



**Table 4.2: Summary of Nearby Wells**

Township	Range	Section	Total Depth	Static Water Level	Yield (gallons per minute)	Date	Use
4 North	2 East	16	325	248	4	12/31/62	Stockwater
4 North	2 East	10	200	140	20	7/12/47	Stockwater

*(Source: Montana Bureau of Mines and Geology, Ground Water Information Center)*

*The total depth column is the depth drilled, which may be deeper than the bottom of the well as completed. Static water level is the level of water measured in the well at the time of installation. Yield is the amount of water the well is expected to be capable of producing as reported by the well driller. All data is based upon driller's logs and may not be reported for every well.*

### 3.0 Geology

The proposed land application site is located in west-central Montana in the southern portion of the Townsend Valley that is a 600 square mile intermontane basin bordered by the Big Belt Mountains on the east and by the Elkhorn Mountains on the west. The Townsend Valley trends slightly northwest across the central part of Broadwater County and the southeastern part of Lewis and Clark County. The portion of the Townsend Valley underlain by Tertiary and younger sediments has a maximum width of 15 miles and is approximately 45 miles long. Tertiary deposits that consist mainly of conglomerate, shale, sandstone, and tuff, with minor amounts of

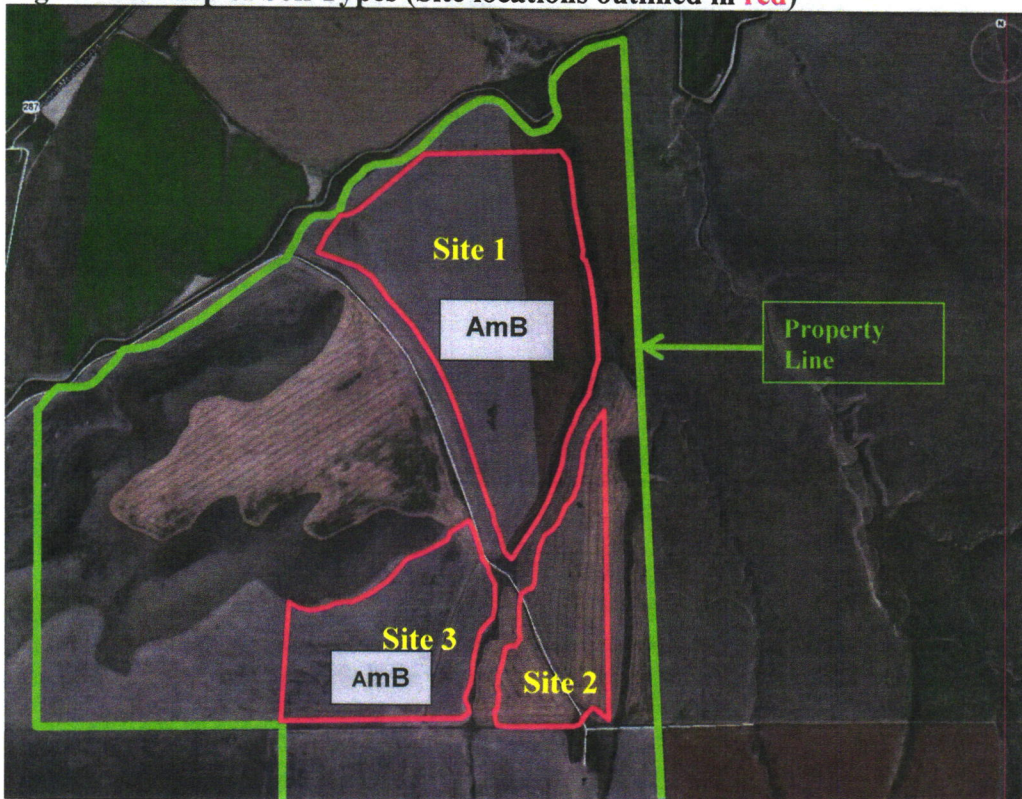


breccia, limestone, and diatomaceous earth underlie the Townsend Valley. Many of these deposits are considered to be poorly consolidated or unconsolidated. Much of the valley is also bordered by broad fans and aprons of Pleistocene and recent Alluvium that are then bordered in many places by low benchlands of Tertiary deposits. Igneous rocks that have intruded the sedimentary rocks in many places in the valley are also exposed. Near the northern end of the valley, Tertiary deposits dip 10° to 15° toward the Big Belt Mountains and terminate in a major steep fault zone at the mountain front. At the southern end of the valley, Tertiary beds are folded and form the broad, gentle sloped Dry Creek anticline east of Townsend. The east limb of the anticline may also terminate in mountain front faults. Near the southern end of the valley, the valley broadens into a low, gently sloping plain that is crossed by Crow Creek. The Crow Creek Plain is approximately 10 miles wide from east to west and 15 miles long. There is no anticipated impact to the geology in the area from the proposed land application activities.

#### 4.0 Soil Quality – Stability & Moisture

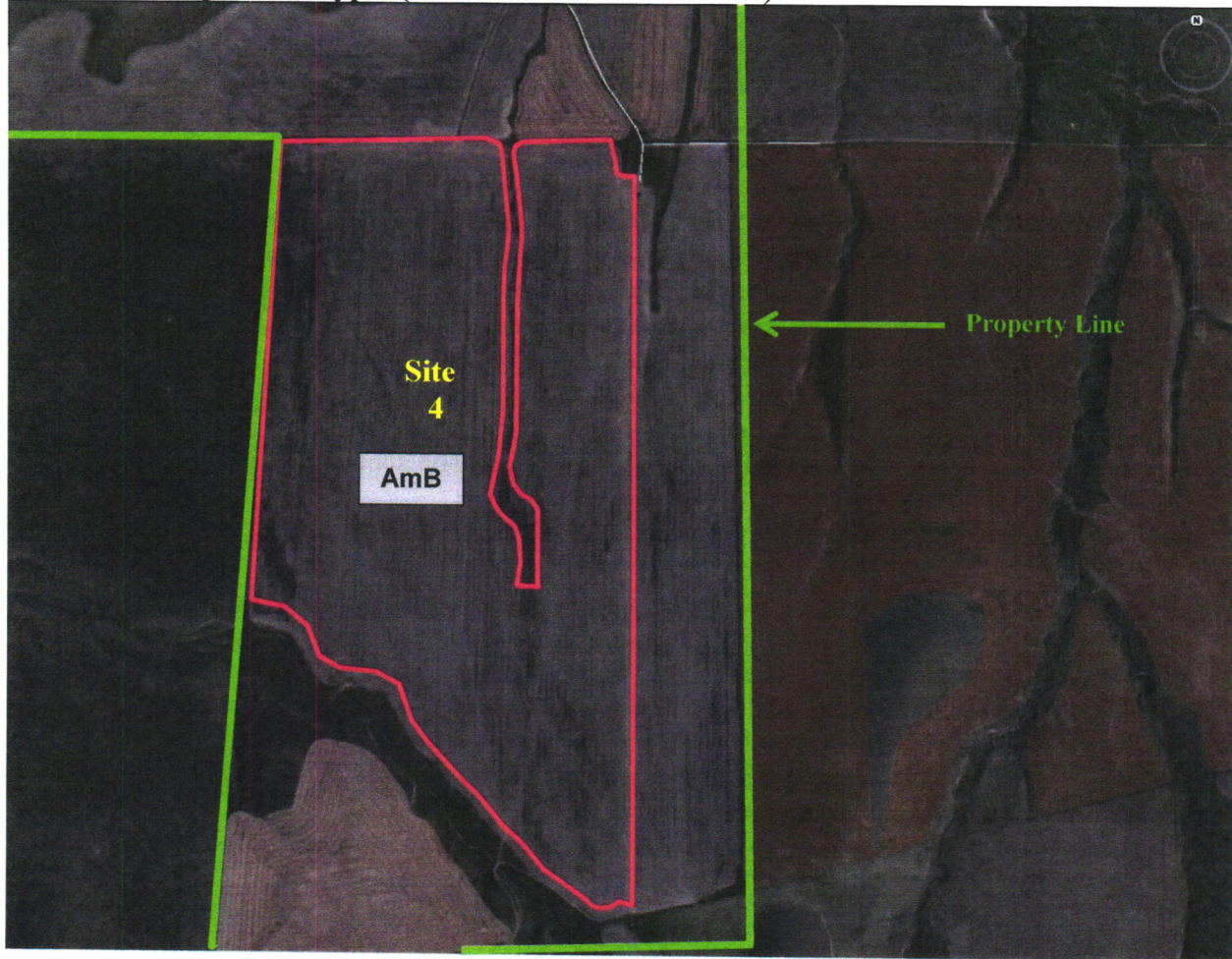
The soil types at the proposed land application site are all classified as the Amesha sandy loam on 1 to 4% slopes (Figures 4.2 and 4.3). The typical profile of the Amesha sandy loam consists of approximately ten inches of sandy loam that overlies ten to 74 inches of loam. These soils are well drained with a moderately high to high water capacity and moderately high to high permeability. This means that these soils are well suited for land application due to good drainage and infiltration, and the ability for water to soak in at a moderate rate. All of the soils in the area have a depth to water greater than 90 feet. The land application of septage at the proposed location will have a positive minor impact on soils by adding organic matter and nutrients for plant uptake.

**Figure 4.2: Map of Soil Types (Site locations outlined in red)**





**Figure 4.3: Map of Soil Types (Site location outlined in red)**



## **5.0 Vegetation Cover, Quantity and Quality**

The quantity and quantity of the vegetative cover will be enhanced by the proposed land application activities. When properly managed, septage is a resource that is used as a valuable soil conditioner that contains nutrients. This can reduce reliance on chemical fertilizers for agriculture. A good land application program recognizes the potential benefits of septage and employs practices to maximize these benefits. The acreage available for land application will be rotated on an annual basis, so that parcels used one year will be inactive the next year. This rotation allows the vegetation or crop of choice to utilize the nitrogen and other nutrients added from the land application process. When applied as a soil conditioner, septage provides benefits to agricultural land by the addition of moisture, organic matter and nutrients to the soil without adversely affecting public health. The land application of septage, portable toilet waste, and graywater at this site will have a positive minor impact on the site from the addition of nutrients and moisture. The organic matter added from the proposed activity will also improve the soil tilth for the continued production and enhancement of agricultural crops.

## **6.0 Aesthetics**

This proposed land application site is on active farming land and is not located on a prominent topographical feature. It is not visible from a highly populated area. The application of septage is similar to the day to day activities of farming and ranching in the area and will not cause a change in the aesthetics of the area. There is no additional impact to the aesthetics anticipated as a result of the proposed land application activities.



## **8.0 Unique, Endangered, Fragile, Or Limited Environmental Resources**

A search of the Montana Natural Heritage Program indicated the Spotted Bat, Golden Eagle, Bald Eagle, Great Blue Heron, Bobolink, Pileated Woodpecker, Pinyon Jay, Long-billed Curlew, and the Blue-gray Gnatcatchers are listed as species of concern. Designation as a species of concern is not a statutory or regulatory classification. Instead, these designations provide a basis for resource managers and decision-makers to make proactive decisions regarding species conservation. There are no wetlands or permanent surface water bodies located on the proposed site. An intensive site survey was not conducted to verify the presence of, or impact to, sensitive, unique, endangered, or fragile species within or adjacent to the proposed land application site because the site is currently used for farming and the active production of wheat. Therefore, it is unlikely that these species have made a permanent residence on the areas proposed for land application. As a result of the limited development and lack of human population in the area, there remains adequate acreage of similar habitat available in the vicinity of the proposed site to accommodate any species that would have been forced to relocate from the current agricultural activities. Therefore, there is no additional impact to resources anticipated as a result of the proposed land application activities.

## **9.0 Historical and Archaeological Site**

A cultural resource file search was conducted for the proposed land application site. Records from the State Historic Preservation Office indicate there have been no previously recorded historical or archaeological sites recorded within Sections 9 and 16, T4N, R2E. The State Historic Preservation Office stated that there is a low likelihood that cultural sites will be impacted and therefore a cultural resource inventory is unwarranted at this time. The site is actively used for the production of spring wheat. However, should cultural materials be inadvertently discovered during land application activities at the proposed site, the State Historic Preservation Office will be notified immediately.



**TABLE 4.3: POTENTIAL IMPACTS OF THE PROPOSED LAND APPLICATION  
SITE ON THE HUMAN ENVIRONMENT**

<b><u>HUMAN ENVIRONMENT</u></b>	<b>Major</b>	<b>Moderate</b>	<b>Minor</b>	<b>None</b>	<b>Unknown</b>	<b>Attached</b>
1.0 SOCIAL STRUCTURES & MORES:				✓		
2.0 CULTURAL UNIQUENESS & DIVERSITY:				✓		
3.0 DENSITY & DISTRIBUTION OR POPULATION & HOUSING:				✓		
4.0 HUMAN HEALTH & SAFETY:				✓		✓
5.0 COMMUNITY & PERSONAL INCOME:				✓		
6.0 QUANTITY & DISTRIBUTION OF EMPLOYMENT:				✓		
7.0 LOCAL & STATE TAX BASE REVENUES:				✓		
8.0 DEMAND FOR GOVERNMENT SERVICES:			✓			✓
9.0 INDUSTRIAL, COMMERCIAL, & AGRICULTURAL ACTIVITIES & PRODUCTION:				✓		
10.0 ACCESS TO & QUALITY OF RECREATIONAL & WILDERNESS ACTIVITIES:				✓		
11.0 LOCALLY ADOPTED ENVIRONMENTAL PLANS & GOALS:				✓		
12.0 TRANSPORTATION:				✓		✓



## ANALYSIS OF TABLE 4.3 - POTENTIAL IMPACTS ON HUMAN ENVIRONMENT

*This section evaluates the potential environmental effects that may occur on the human environment if the proposed facility is approved. The number on each of the underlined resource headings corresponds to a resource listed in the tables. Generally, only those resources potentially affected by the proposal are discussed. Therefore, if there is no effect on a resource, it may not be discussed.*

### 4.0 Human Health & Safety

The septage, portable toilet waste, and graywater will be land applied at the site on an as needed basis using a dispersive mechanism. The dispersive mechanism applies the waste in a wide, thin, even layer at a beneficial rate. Septage will be incorporated into the soil surface plow layer with a tractor and tillage equipment within six-hours of application. There are no additional health or safety concerns when the site is operated in accordance with the Septage Disposal regulations. Therefore, there are no additional impacts on human health and safety anticipated as a result of land application activities.

### 8.0 Demand for Government Services

The Broadwater County Sanitarian and DEQ Solid Waste Section will conduct periodic inspections of land application activities at the site. Therefore, there is a minor impact on the demand for government services.

### 12.0 Transportation

The proposed land application site will be accessed off Lone Mountain Road. Lone Mountain Road currently supports traffic to rural homes, farms and ranches, including heavy equipment associated with the current agricultural activities in the area. The site will be used by the applicant on an as needed basis and will not cause a significant increase in traffic on Lone Mountain Road. There are no additional impacts to transportation anticipated as a result of the proposed land application activities.



## **SECTION 5.0 CONCLUSIONS AND RECOMMENDATIONS**

### **Evaluation of mitigation, stipulations, and other controls enforceable by the agency or another government agency:**

The proposed land application site and Operation and Maintenance (O&M) Plan will meet the requirements of the Montana Septage Disposal and Licensure Law, Air and Water Quality Acts, and other applicable Montana environmental laws and regulations, as well as county ordinances. Adherence to the regulations and the approved O&M Plan will mitigate the potential for harmful releases and impacts to human health and the environment by the proposed activity at the site.

### **Recommendation:**

DEQ's recommendation is to distribute the Draft EA to adjacent landowners and interested persons for 30 days to satisfy the public notification and participation requirements of MEPA. Comments received during the 30-day public participation period in response to the Draft EA will be considered in the final decision on the proposed action.

### **Findings:**

DEQ has determined that the proposed site, located on rural, private property, will have a minor impact on the surroundings. Access to the site will be controlled and all land application activities will be performed according to the DEQ-approved O&M Plan to ensure that the land application activities will be conducted in compliance with all applicable rules and regulations. Site activities will be verified by periodic inspections performed by DEQ and/or Broadwater County personnel to ensure that the potential risk of adverse effects on human health and the environment resulting from land application activities at the site are minimized. This treatment option is a beneficial reuse of a waste product.

### **Other groups or agencies contacted or which may have over-lapping jurisdiction:**

Broadwater County Public Health Department

### **Individuals or groups contributing to this EA:**

Levi DeMartin of Kerplunk LLC.

Montana Natural Heritage Program

Montana Historical Society State Historic Preservation Office

Natural Resource Information System

### **References:**

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